

MARKED-UP VERSIONS OF CLAIMS 39 AND 50:

39. (Currently Amended) A method of monitoring an optoelectronic device, comprising:  
in accordance with instructions received from a host device, enabling the host device  
to read directly reading from and writing write directly to locations within a memory; and  
receiving a plurality of analog signals from the optoelectronic device, the analog  
signals corresponding to operating conditions of the optoelectronic device, converting the  
received analog signals into digital values, and storing the digital values in predefined  
locations within the memory;

wherein the method is performed by a single-chip controller integrated circuit.

50. (Currently Amended) A method of controlling an optoelectronic transceiver having a  
laser transmitter and a photodiode receiver, comprising:

in accordance with instructions received from a host device, enabling the host device  
to read reading directly from and writing write directly to memory mapped locations within a  
controller of the optoelectronic transceiver;

receiving a plurality of analog signals from the laser transmitter and photodiode  
receiver, converting the received analog signals into digital values, and storing the digital  
values in predefined memory mapped locations within the controller;

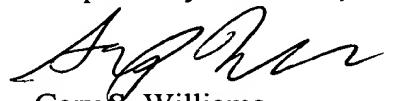
comparing the digital values with limit values to generate , generating flag values  
based on the limit values, and storing the flag values in predefined memory mapped locations  
within the controller during operation of the optoelectronic transceiver; and

generating control signals to control operation of the laser transmitter in accordance  
with one or more values stored in the predefined memory mapped locations within the  
controller. ;

~~analog to digital conversion circuitry for receiving a plurality of analog signals from the laser transmitter and photodiode receiver, converting the received analog signals into digital values, and storing the digital values in predefined memory mapped locations within the controller.~~

Respectfully submitted,

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(Reg. No.)

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